

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 1-17 remain in this application and, as amended herein, are submitted for the Examiner's reconsideration.

In the Office Action, the Examiner erroneously contends that the claims terms "information processing apparatus", "synchronization control data", "generation means", "counter value", "transmission means", "control data transmission means", "data transmission means", "transmission resetting means", and "acquisition means" are "inconsistent with the specification". However, each of these terms is recited in the Disclosure Of The Invention of the original specification. Moreover, each of these terms is recited in the claims as filed in the original specification and likewise is part of the disclosure. (See M.P.E.P. § 2163.06 III.) Hence, the terms are each consistent with the specification.

Claims 1, 4-5, 10-12, and 16-17 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

The Examiner contends that "[t]he term 'substantially' recited in claims 1 and 4 is a relative term which renders the claim indefinite" and that "'substantially' is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention." However, the Federal Circuit has repeatedly held that use of the term "substantially" does not render a claim indefinite. For example, the court held in *Ecolab Inc. v. Envirochem Inc.*, 60 USPQ2D 1173 (Fed. Cir. 2001):

The '818 written description does not reveal any special definition for the terms "substantially" or "uniform" or the phrase "substantially uniform." See, e.g., '818 patent, col. 18, ll. 30-31 ("the mixture was sufficiently viscous so that a uniform dispersion

was maintained"); *id.* at col. 22, ll. 62-64 ("the solid cast detergent of this invention provides very uniform chlorine recovery when compared to a prior art formulation"); *id.* at col. 5, ll. 13-15 ("an article of commerce capable of dispensing dissolved solids from substantially only one surface"); *id.* at col. 5, ll. 41-43 ("the cast detergent can be demolded and inserted in an inexpensive container or receptacle which has substantially the same configuration as the mold"). Furthermore, the use of the term "substantially" to modify the term "uniform" does not render this phrase so unclear such that there is no means by which to ascertain the claim scope.

We note that like the term "about," the term "substantially" is a descriptive term commonly used in patent claims to "avoid a strict numerical boundary to the specified parameter." *Pall Corp. v. Micron Seps.*, 66 F.3d 1211, 1217, 36 USPQ2d 1225, 1229 (Fed. Cir. 1995); See, e.g., *Andrew Corp. v. Gabriel Elecs. Inc.*, 847 F.2d 819, 821-22, 6 USPQ2d 2010, 2013 (Fed. Cir. 1988) (noting that terms such as "approach each other," "close to," "substantially equal," and "closely approximate" are ubiquitously used in patent claims and that such usages, when serving reasonably to describe the claimed subject matter to those of skill in the field of the invention, and to distinguish the claimed subject matter from the prior art, have been accepted in patent examination and upheld by the courts). In this case, "substantially" avoids the strict 100% nonuniformity boundary.

(*Id.* at 1179; emphasis added.) As another example, the Federal Circuit held in *Verve LLC v. Crane Cams Inc.*, 65 USPQ2D 1051 (Fed. Cir. 2002):

Expressions such as "substantially" are used in patent documents when warranted by the nature of the invention, in order to accommodate the minor variations that may be appropriate to secure the invention. Such usage may well satisfy the charge to "particularly point out and distinctly claim" the invention, 35 U.S.C. §112, and indeed may be necessary in order to provide the inventor with the benefit of his invention. In *Andrew Corp. v. Gabriel Elecs. Inc.*, 847 F.2d 819, 821-22, 6 USPQ2d 2010, 2013 (Fed. Cir. 1988) the court explained that usages such as "substantially equal" and "closely approximate" may serve to describe the invention with precision appropriate to the technology and without intruding on

the prior art. The court again explained in *Ecolab Inc. v. Envirochem, Inc.*, 264 F.3d 1358, 1367, 60 USPQ2d 1173, 1179 (Fed. Cir. 2001) that "like the term 'about,' the term 'substantially' is a descriptive term commonly used in patent claims to 'avoid a strict numerical boundary to the specified parameter,'" quoting *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1217, 36 USPQ2d 1225, 1229 (Fed. Cir. 1995).

It is well established that when the term "substantially" serves reasonably to describe the subject matter so that its scope would be understood by persons in the field of the invention, and to distinguish the claimed subject matter from the prior art, it is not indefinite. Understanding of this scope may be derived from extrinsic evidence without rendering the claim invalid. The summary judgment record offered no basis for departing from these general rules. Thus the usage "substantially constant wall thickness" does not of itself render the claims of the '315 patent indefinite. The summary judgment on this ground is vacated; we remand for further proceedings, including any appropriate recourse to extrinsic evidence concerning the usage and understanding of the term "substantially" in relevant context.

(*Id.* at 11054; emphasis added.) Clearly, the term "substantially" is a valid claim term.

The Examiner also asserts that "[t]he term 'immediately' recited in claims 1, 4-5, 10-12, and 16-17 is a relative term which renders the claim indefinite" and that "'immediately' is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention." However, the specification describes:

... Then, at timing t2 when the value of the clock counter register 31 has become "0," the synchronization master apparatus 12 starts transmission of the synchronization control frame, and resets the clock counter register 31 at timing t3 when transmission of the synchronization control frame is completed ...

(See p.25 ll.12-18; emphasis added.) Fig. 11 clearly shows that transmission of the synchronization control frame is completed at time t3.

Also, the specification describes:

Therefore, the synchronization slave apparatus 13 starts reception of the synchronization control frame at the same timing as t2 at which the synchronization master apparatus 12 started transmission of the synchronization control frame, determines, based on the receive complete interrupt of the built-in network controller in the network interface 212 and at the same timing as t3 at which the synchronization master apparatus 12 completes transmission of the synchronization control frame, that reception of the synchronization control frame is completed, and resets the clock counter register 201.

(See p.26 ll.8-18; emphasis added.) Clearly, one of ordinary skill in the art would be reasonably apprised of the scope of the invention based on the above, and hence the term "immediately" is not indefinite.

Applicant therefore submits that claims 1, 4-5, 10-12, and 16-17 are in full compliance with the requirements of 35 U.S.C. § 112, second paragraph.

Turning now to the art rejections, claims 1-2, 4-6, 10-13, and 16-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Voth (U.S. Patent No. 6,199,169) in view of Dworkin (U.S. Patent Application Publication No. 2003/0058893). Applicant submits that the claims are patentably distinguishable over the relied on sections of the references.

The Examiner acknowledges that "Voth does not explicitly disclose that the transmission clock counter resets 'immediately' after transmitting the INFO message and the reception clock counter resets 'immediately' after receiving the INFO message" but contends that "Dworkin discloses a system where in the first device generates and transmits a signal to other devices and [the] other device[s] will reset their counter[s] by loading a value upon receipt of a signal from the

first device" and relies on ¶ [0009], 6th and 7th sentences of Dworkin. However, the relied on section of Dworkin actually teaches away from such a system. Namely, such section further describes:

... While effective, this solution is not without problems. For example, because the signal that triggers the loading feature is generated externally to the other CMTS devices, its receipt is subject to delays associated with network latency and software and programming configurations. Thus, additional needs exist for synchronizing time between multiple CMTS devices. [.]

(Emphasis added.) Thus, a person of ordinary skill in the relevant art would not look to incorporate the teachings of the relied on section of Dworkin into the teachings of the relied on sections of Voth.

It follows that the teachings of the relied on section of Dworkin is not combinable with the relied on sections of Voth. Therefore, for at least these reasons, claim 1 is patentably distinct and unobvious over the relied on sections of the references.

Independent claims 4-5, 10-12, and 16-17 each call for features similar to those set out in the above excerpts of claim 1. Claims 4-5, 10-12, and 16-17 are therefore each patentably distinct and unobvious over the relied on sections of Voth and Dworkin at least for the same reasons.

Claim 2 depends from claim 1, claim 6 depends from claim 5, and claim 13 depends from claim 12. Therefore, each of these claims is distinguishable over the relied on art for at least the same reasons as the claim from which it depends.

Additionally, (i) claims 3 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable Voth in view of Dworkin and further in view of Salo (U.S. Patent No. 6,128,318), (ii) claims 8 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable Voth in view of Dworkin and further in view of Zdepski (U.S. Patent No. 5,486,864), and (iii) claims 9

and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable Voth in view of Dworkin and further in view of Nuber (U.S. Patent No. 5,598,415). Applicant submits that the claims are patentably distinguishable over the relied on sections of the references.

Claim 3 depends from claim 1, claims 7, 8 and 9 depend from claim 5, and claims 14 and 15 depend from claim 12. Therefore, each of these claims is distinguishable over the relied on sections of Voth and Dworkin at least for the same reasons as its parent claim.

Neither the relied-on sections of Salo, the relied-on sections of Zdepski, nor the relied-on sections of Nuber overcome the deficiencies of the relied-on sections of Voth.

Accordingly, Applicant respectfully requests the withdrawal of the rejections under 35 U.S.C. §§ 103(a) and 112, second paragraph.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

Electronic signature: /Lawrence
E. Russ/

Lawrence E. Russ

Registration No.: 35,342
LERNER, DAVID, LITTENBERG,
KRUMLIK & MENTLIK, LLP
600 South Avenue West
Westfield, New Jersey 07090
(908) 654-5000

Attorney for Applicant

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